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ABSTRACT

Leveraging Internet technologies, distance education is enjoying a renaissance of sorts. With its newfound popularity comes greater resource as well as higher expectations and great scrutiny. If distance education programs are to support their dramatic growth and outlive the hype, they must demonstrate performance results. Performance, however, does not just happen. High quality organizations actively support performance through processes, structures, and feedback systems that are aligned with organizational goals. In presenting recommendations for performance-oriented approaches, an established model of organizational alignment is applied to distance education in postsecondary institutions. The model facilitates the analysis of goals, structure, and management practices across the organization, its processes, as well as the work and workers involved. Also presented are performance improvement strategies such as benchmarking and documenting workflows, setting clear expectations, and developing feedback systems. Distance education practitioners can use the organizational alignment model and the strategies discussed to design a new program or transform an existing one. (Contains 41 references.) (Author/AEF)

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Organizational Alignment Supporting Distance Education in Post-secondary Institutions

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Abstract

Leveraging Internet technologies, distance education is enjoying a renaissance of sorts. With its newfound popularity come greater resources as well as higher expectations and greater scrutiny. If distance education programs are to support their dramatic growth and outlive the hype, they must demonstrate performance results. Performance, however, does not just happen. High quality organizations actively support performance through processes, structures, and feedback systems that are aligned with organizational goals. In presenting recommendations for performance-oriented approaches, an established model of organizational alignment is applied to distance education in postsecondary institutions. The model facilitates the analysis of goals, structure, and management practices across the organization, its processes, as well as the work and workers involved. Also presented are performance improvement strategies such as benchmarking and documenting workflows, setting clear expectations, and developing feedback systems. Distance education practitioners can use the organizational alignment model and the strategies discussed to design a new program or transform an existing one.

Introduction

Onto the Web we go

Though distance education has been around in various forms for many years, it is only recently -- with the emergence of web-based delivery platforms – that it has become the center of so much attention (Foshay & Moller, in press). "Where distance education used to suffer from benign neglect, now everyone wants to have a say in how (it) is used, controlled, and managed" (Sachs, 1999: p.75). Many institutions that previously ignored distance education altogether, are now rushing to deploy their own online programs in an effort to curb damage to their enrollments and possibly their reputations.

New entries

Post-secondary institutions face leveling student enrollment and rising competition from several directions. Previously viewed as relatively insignificant outreach projects, distance education programs (often from smaller schools) are taking more and more students away from large, regionally dominant schools. Institutions can no longer take for granted the geographic boundaries, or "turfs," that enabled them to virtually monopolize their regions. For-profit educational institutions (e.g., University of Phoenix) are becoming more commonplace and are beginning to gain accreditation. Also, there is an increasing number of professional certification programs, which more and more "free-agent" learners are using in lieu of matriculated programs to gain entry into the workforce and to increase their marketability (Foshay & Moller, in press).

Veterans transitioning to the Web

Those colleges and universities that long ago embraced distance education (through print, audio, and video technologies) face critical challenges also. Stay within their niche of experience and face possible obsolescence? Or, "take arms against a sea of troubles" and embrace the Internet (with computer mediated communication tools) as the vehicle of choice for distance education? The latter presents significant restructuring and reengineering challenges.

Current online programs

Though many institutions have decided to take the plunge into web-based distance learning, few have found a winning recipe for success. In fact, in the rush to move courses online, front-end analysis and planning are often first to be discarded for the sake of expedience. It seems that in at least some cases, distance education administrators are taking the 'hare' approach, figuring that just this once, they will win the race against the tortoise.

Distance education in the spotlight

In a Department of Education survey (1997-98), 20% of the respondents – 990 post-secondary institutions – reported that within three years they planned to join the 1,680 schools offering online distance education courses (NCES, 2000). With about 54,000 courses available over the web in 1998, serving 1.6 million students, and with relatively low economic barriers to entry, instead of asking 'Why distance learning?' many university presidents are asking 'Why not?'

With increased attention from university presidents comes more resources and higher status as well as higher expectations and greater scrutiny. Expectations typically take the form of business results: increased enrollments, lower operating costs, and (in some organizations) higher profits. Greater administration commitment and scrutiny ensures that in order to thrive in today's more businesslike post-secondary institutions, distance education programs must demonstrate business results. Otherwise, they risk eventual outsourcing, re-structuring, and (perhaps worst of all) divestiture. A new, results-oriented approach is needed to assure that distance education efforts are focused on goals that are in alignment with the institution's mission.

Towards business results: A human performance approach

Administrators who recognize the need to instill a results-oriented mindset in their distance education departments may find it helpful to examine proven strategies from the field of human performance technology ("HPT"). HPT draws from a variety of other fields, including management sciences, organizational development, instructional systems design, and quantitative analysis. Figure 1 lists several of HPT's core principles. The strategies that have evolved from these principles are as diverse as HPT's origins. Harmon (1984) provides a hierarchical structure for organizing HPT strategies. These encompass high level, organizational solutions such as total quality management ("TQM") and balanced scorecard evaluation systems as well as more grass roots, individual-oriented applications such as job re-engineering, performance support tools, and 360-degree performance evaluations. In general, HPT advocates measuring actual performance; comparing results against pre-set goals; and implementing systems, processes, and practices that are vertically aligned with those goals. Considering the seeming lack of clear goals, long-term planning, and feedback systems that characterize distance education today, applying an HPT approach may shed some light on best practices for establishing a successful program or transforming an existing program into a results-oriented organization.

Figure 1. Human Performance Technology core principles

1. HPT distinguishes between behavior (what someone does) and performance (measurable results achieved), and focuses primarily on performance.
2. Diagnosing performance problems involves measuring the gap between current and expected performance.
3. All performance problems stem from the worker, the environment, or a combination of both.
4. Processes depend on people to make them work, but people are not productive when they are in bad processes.
5. Organizations are open systems with inputs, outputs, processes, and feedback systems. Management, development, and systems functions affect all organizational performance.
    - Management functions guide and control the organization's processes and people through feedback, coaching, reprimands, and incentives.
    - Development functions improve the abilities and capabilities of workers through training, mentoring, and other developmental activities.
    - Systems components are the variables in the work environment that affect performance such as work processes, standard operating procedures, policies, practices, feedback mechanisms, reward structures, etc.
6. Exemplary performance should be used to benchmark workflows, set optimal performance levels, etc.
6. Rather than seeing HPT solutions as expenses, they should be viewed as investments and return on investment ("ROI") calculated for all significant expenditures

Adapted from Rothwell (1996: pp.30-32)

An organizational alignment model

Rummler & Brache's Organizational Alignment Model (1990) provides a useful framework for analyzing and aligning the goal-setting, structure, and management practices of an institution, its distance education processes,

and its staff members. An analysis matrix has been adapted from this model and is shown in Figure 2. The nine cells of this matrix form the nine focal points for analysis. A similar approach involving organizational alignment analysis has been used to analyze parallel issues in training and e-learning contexts (Moller, Benscoter, Rohrer-Murphy, 2000; Prestera & Moller, in press). The model will be applied here in the context of distance education both to the question of what is and what should be present to support the goals, structure, and management of distance education programs. Recommendations, often founded in human performance technology (HPT) and organizational behavior literature, will also be presented.

Figure 2. Organizational Alignment Model

	Goals	**Structure**	**Management**
Organization	***Cell 1*** – What will training contribute to the institution's business goals?	***Cell 4*** – How should we structure the distance education group to meet the institution's business goals?	***Cell 7*** – How will we measure and improve contributions to business goals?
Process	***Cell 2*** – What are the key success factors for delivering distance education such that they meet the business goals?	***Cell 5*** – How should workflows be structured in order to drive success?	***Cell 8*** – How will we measure and improve the process?
Job/ Performer	***Cell 3*** – What do we need from staff members in order to achieve our process goals?	***Cell 6*** – How should roles and responsibilities be defined in order to meet expectations and deliver process results?	***Cell 9*** – How will we measure and improve individual performance on the job?

Adapted from Rummler & Brache (1990)

Goals

Rothwell (1996) defines a goal as "a target for achievement… difficult to measure or to achieve in an identifiable time span… developed directly from an organization's mission or purpose statements." (p. 115). Goal-oriented by nature, human beings often set goals in pursuit of loftier purposes, reaching out towards visions of a better future. It should be of no surprise then that in the workplace, higher performance is possible when workers know what goals they should achieve and are confident in their ability to achieve them (House, 1971). Therefore, distance education administrators should set departmental goals that are in alignment with the institution's mission, perceived as achievable, and well-communicated to staff members.

In practice, however, departmental and organizational goals rarely seem to possess these traits. Distance education initiatives are often undertaken with at best only token consideration of institutional, logistical, and instructional needs (Blumenstyk, 1996). When program goals do exist they are often tied closely to misperceptions, which ultimately undermine the success of the initiative. In other instances, goals do not align with the program's processes and/or they are not communicated properly within the program. In this section, an argument is presented for establishing results-oriented goals, benchmarking successful process goals, and clearly communicating performance expectations for distance education staff.

Cell 1: Organization goals

Many managers both in the corporate world and in non-profit organizations manage their organizations with only one or two broad performance indicators, which offer limited help in diagnosing performance gaps, are typically too broad for individual workers to feel accountable for them, and generally create a sense of tunnel vision.

Recommendation 1A: Use balanced approach to goal setting

For decades, managers have sought out the "magic number," the one indicator that accurately measures the health of their organization. Net income, earnings per share, economic value added, and the other financial measures are widely used in for-profit organizations. Enrollment figures are typically used in academic settings. However, a new paradigm in the area of performance measurement has arisen in the last ten years. It asks the

question, "What are your organization's key success factors?" and "How can you assess your organization's performance in those areas?" Kaplan and Norton (1996) categorized these factors into four dimensions of performance: learning, operating efficiency, customer satisfaction, and financial success. Having only one performance measure, the authors assert, is like driving a car with no other indicators but a fuel gauge. In distance education, organizations should move beyond enrollment targets and set goals that – as a group – paint as complete a picture of performance as possible. Figure 3 lists some possible success factors that could be part of a distance education balanced scorecard.

Figure 3. Possible balanced scorecard goals for distance education

Customer Satisfaction Goals	• Improve access - To improve access to instruction for workers whose schedules do not permit enrollment in traditional classroom programs (e.g., night shift crews), are geographically dispersed, or economically challenged. • Individualize instruction – Individualize instruction through blended course offerings (that combine delivery methods) and individualize content selection. • Lifelong learning - To support continuous learning, sustaining learning experiences beyond the time constraints of the classroom. • Employer relations – How can we improve employer perceptions/acceptance of distance education degrees so that students with such degrees are perceived as just as qualified, if not more qualified, than resident students. • Collaboration - To provide collaborative educational opportunities (see discussion groups, CSILEs, and CSCWs).
Operating Efficiency Goals	• Delivery efficiency - To organize, update, and distribute content efficiently and effectively through knowledge management systems (see reusable information objects and reusable learning objects). • Reducing downtime – What steps can be taken to reduce student/faculty downtime caused by technological constraints (e.g., bandwidth) and system errors. • Scheduling flexibility - To improve flexibility in scheduling for faculty and content experts, enabling them to leverage their time.
Learning Goals	• Innovate instruction – Distance education programs can act as testing ground for performance-based assessments, new learning paradigms, and instructional strategies. • Faculty development – As part of the design and delivery process, faculty will develop new medium-specific skills and may improve their overall teaching skills as well.
Financial Goals	• Operating costs - To reduce costs for the student, the school, and the faculty. • Profit – With for-profit organizations, this will inevitably be a measure.

Recommendation 1B: Assess needs of distance education stakeholders

As part of identifying the goals and measures to be included in this scorecard, distance education programs should assess the needs of all stakeholders, including potential and existing students, faculty, administration, and the IT department. For example, though distance education is gaining acceptance among students, it is by no means mainstream. In fact, the non-traditional students who would typically enroll in distance education courses are still the in the minority (Young, 2000). As marketing researchers know firsthand, there is a significant difference between a consumer's willingness to buy a product or service (acceptance) and their actual motivation to buy it (demand). Assessing the demand for distance education courses (through surveying, pilot studies, etc.) should precede any distance education enterprises. Similarly, student needs regarding content, interface, technical support, scheduling, etc. should be assessed as well. McIsaac (1998) contrasts the U.S. model of distance education with the needs-based approach of non-U.S. institutions.

> "Many countries have identified educational needs and have designed distance learning delivery systems to meet those needs. Conversely, it appears that educators and administrators in the U.S. have discovered broadband communication technology and are searching for ways to use the technology to compete for students in the higher education market and to cut costs. (p.24)"

Recommendation 1C: Communicate goals and measures

Once the program's goals and measures – which should be aligned with the institution's mission – are set, they should be communicated to the entire college or university with support from the President. Support from the top is critical in moving the program past gridlock. This is especially true for distance education programs since their activities must (by their very nature) cross geographic/departmental boundaries and consequently traverse many political obstacles. In describing the success of the distance education program at Northern Virginia Community College's, Sachs (1999) singled out public support from the President as "a key ingredient" and wrote that "This frequently meant discussions were not stuck on 'whether' to do something and moved to 'how to do it. (p. 68)."

Cell 2: Process goals

"Place a good worker in a flawed process and the process wins… every time" (Rummler & Brache, 1990). This truism underscores the importance of establishing a sound operational process for developing and delivering distance education courses. Identifying the goals of a distance learning program requires careful planning and an eye towards the future. Unfortunately, as Simerly (1999) points out, "today's organizational planning must occur in an environment of unpredictability that usually does not proceed in linear ways… (with) key stakeholders often (having) conflicting points of view regarding the planning process and its outcomes" (p.42). With the rise in acceptance of distance education comes greater internal conflict, as more stakeholders are involved, each jockeying for authority over online resources. Also, distance education programs are often in such a hurry to move content online that workflows are rarely documented, measured, or evaluated. Without clear process goals, however, consistency, accountability, and collaboration are jeopardized. If each member of a design team, for example, has a different idea of how the design process is supposed to work – and there is no documented way of doing things – time will be wasted and quality may even be compromised. In addition, without documenting workflows, there is no means to retain "lessons learned" and other valuable organizational learning.

Recommendation 2A: Benchmark workflows

With the rise of Total Quality Management, many organizations are benchmarking their internal and external processes (Rothwell, 1996). Though quantitative sources of data for online distance education are scarce, there are some benchmarking reports, case studies, and guideline recommendations available. Carnevale (2000) describes a benchmarking study of six institutions with strong distance education programs, conducted by the Institute for Higher Education Policy (an executive summary can be downloaded at http://www.ihep.com/qualityonline.pdf). Twenty-four benchmarks for online distance education are provided, including the importance of online interaction with instructor and other students. Another source, described by Young (2000), is a faculty report written by 16 professors, which takes a critical look at distance education. The report, for example, recommends against the implementation of complete undergraduate degree programs for traditional students, citing student need of "personal socialization" (this report, titled 'Teaching at a distance' is available online at http://www.vpaa.uillinois.edu/tid/report/). Also, several authors provide recommendations and guidelines, often based on practical experiences (Trentin, 1998; Sachs, 1999; McIsaac, 1998; Collis, 1999; Evans, 1999; Prestera & Moller, in press).

Benchmarking questions to be answered include:

- What should be happening in course development and delivery that will improve how staff members perform?
- What should be happening to meet or exceed student expectations of their online course experience?
- What resources will staff members need in order to perform optimally?

Cell 3: Work/Worker goals

An examination of what should be happening with work and workers means identifying the competencies needed to achieve the department's process and organizational goals. Competencies are often examined in the context of job descriptions, performance standards, and feedback mechanisms.

Recommendation 3A: Write or re-write job descriptions

Job descriptions document work/worker goals and are an excellent means for communicating expectations. In developing job descriptions, distance education administrators should benchmark the roles, competencies, and performance outputs; compare those against the department's current skill set; identify any gaps that exist; and develop a strategy for acquiring those competencies. This may involve hiring new individuals with the right skills, re-engineering jobs, and/or developing skills through training, mentoring, practice, and other developmental activities. In a survey of 103 distance education experts, Thach and Murphy (1995) identified the principal roles, skills, and outputs required to deliver distance education. Administrators can use these results as a basis for assessing competencies within their departments. The study identifies eleven roles, which are listed along with their descriptions in Figure 4.

Figure 4. Summary of 11 distance learning roles

Role	Description
Instructional Designer	Work with instructors and/or SMEs to design courses, revise existing courses to fit distance learning environment
Instructor	Lead instructional design effort, facilitate course delivery, monitor and evaluate learner performance
Technology Expert	Advise in selection of distance learning technology, ensure reliability of technology, assess future changes in technology
Technician	Keep equipment in running condition, respond to users' questions and problems
Administrator	Manage staff and operations, balance budget, market distance learning programs
Site Facilitator	Assist students in learning at remote sites, distribute/collect materials/assignments, proctor tests
Support Staff	Register students, communicate course schedule/descriptions, coordinate support services
Editor	Edit course content for style, clarity, grammar, and structure. Arrange text layout for presentation
Librarian	Provide library assistance to students, assist with searches, delivery materials to students
Evaluation Specialist	Provide tools and evaluation instruments, monitor program success/problems, consult instructor about evaluation
Graphic Designer	Design attractive, clear layout, ensure materials facilitate learning

Adapted from Thach & Murphy (1995: p. 67-69)

The list includes primary roles (namely, instructors, instructional designers, technology experts, and administrators) as well as supporting roles, such as editors, librarians, and graphic designers. General interpersonal skills, such as communication, collaboration, and teamwork, as well as other more role-specific skills are listed in conjunction with expected performance outputs. These may serve well as benchmarks for writing job descriptions, recruitment profiles, and performance goals. They can also guide the use of development plans and the implementation of certification programs for distance education faculty, instructional designers, etc.

For veteran distance education programs, some additional issues include:

- Do current workers have the technical and interpersonal skills to work effectively with faculty in developing online courses?
- Do supervisors have the necessary skills to deal with the complex political issues of a growing distance education program?

Recommendation 3B: Link goals to reward system

"People will do what they are rewarded for doing" (Rothwell, 1996: p.257). Though this truism seems relatively obvious, there are still managers around who seem to believe that people perform simply to keep their jobs or out of a sense of loyalty. There are few examples that better demonstrate this than faculty in distance education. Before distance education became an overnight sensation, practitioners were primarily faculty who volunteered. Now, with many faculty being asked to teach online, resistance is on the rise (Dillon & Walsh, 1992). At many universities, and particularly land grant institutions, faculty are evaluated, promoted, and rewarded based primarily on their research, and to a lesser degree, classroom teaching and outreach services. Few schools offer rewards for teaching distance education courses (Wilson, 1998: Wolcott, 1997). In fact, at some universities, distance education faculty earn less credit for teaching than their classroom counterparts (Wolcott, 1997). Expectancy theory tells us

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that if faculty value their rewards, and if they feel capable of teaching distance education courses, then performance expectations and rewards will motivate them to teach online (Vroom, 1967). To the extent that distance education is a priority for the institution, administrators should align distance education goals with the university's feedback and reward systems. An example of this may be to give more weight to the development and delivery of distance education courses as a criteria for tenure.

Structure

Performance occurs within the imaginary boundaries of organizational structures, standard operating procedures, and inter-personal relationships. Unlike goals and management practices, structure typically cannot be changed quickly or easily. Formal embodiments of structure, such as titles, operations manuals, and organizational charts can be changed overnight, however, informal structures (norms and values) are ingrained in the organization's culture and are therefore more difficult to transform. Nevertheless, sometimes change they must. With distance education receiving more attention from institutions, governments, and students there is greater pressure to increase enrollment, quality, and speed. In other words, distance education departments may need to focus on performance more than ever before, even as they expand to accommodate a greater number of courses, faculty, and students.

Cell 4: Structuring the organization

The structure of a distance education department relative to the university or college it serves communicates to all members of the institution the relative importance and scope of distance education. Mark (1990) distinguishes four types of structures, a distance learning program, unit, institution, and consortium. With a program, distance education courses are developed entirely by the faculty of an academic department. A distance learning unit is a separate entity operating inside of a college or university. Usually, the unit will have its own full-time staff, which is completely dedicated to developing distance education courses (e.g., Penn State's WorldCampus). A distance learning institution is a wholly separate entity (e.g., British Open University) with its own faculty, administrative, and supporting units. Its sole purpose is the development and delivery of distance education courses. A consortium is an alliance involving two or more institutions or units, which share design and/or delivery resources.

Recommendation 4A: Align structure with goals and resources

The structure selected depends on the institution's goals and its resources. Wilson (1998) writes that "distant courses require three to four times more dollars to develop and three to eight times more faculty (time) and support personnel resources" (p. 3). If true, institutions that seek cost savings from distance education should create sufficient economies of scale to overcome the up-front fixed costs of developing and delivering distance education courses.

Sachs (1999: p.68) recommends the distance learning unit structure over the program, citing several benefits:

- Receives permanent status
- Is allocated a budget
- Has formal representation on committees
- Serves the entire college or university
- Pools distance education resources and knowledge
- Scalability - can expand or contract as needed
- Allows for economies of scale
- Allows for development of complete degree programs

Another benefit of the unit structure is that it enables distance education administrators the flexibility to set goals that cross service area boundaries and impact the entire institution, not just one academic department. Downsides to this structure include increased overhead, possible jealousy from other service areas that compete for budget allocations, and resentment from those departments over their loss of control over distance education resources.

Establishing a separate distance learning institution is one way to avoid some of the political and budgetary obstacles involved with internal units. An institution, acting as a subsidiary, affiliate, or independent of a resident university or college has its very own budget and most of its resources are self-contained. This enables it to be more

agile, flexible, and responsive to changing student needs and organizational goals. Carr (2000) reports that universities, such as Cornell, Temple, and NYU, have established for-profit online subsidiaries for these same reasons.

Cell 5: Structuring the processes

Process structures are commonly operationalized through policies, practices, and standard operating procedures. These structures help a distance education unit maintain consistency in its workflows and outputs, document organizational learning, and accelerate the ramp up time for new hires. One method for developing good processes involves comparing current practices against benchmarked "best practices" collected from successful programs and then identifying any "disconnects" in the workflows. This process of comparison can identify opportunities for improving the efficiency and effectiveness of key distance education processes such as instructional design and class facilitation (Moller, Benscoter, & Rohrer-Murphy, 2000).

Recommendation 5A: Empower faculty

One benchmark of successful distance education processes is faculty involvement (Carnevale, 2000; Young, 2000). Sachs (1999: p.68) points out that by giving faculty a sense of ownership in the course development process, distance education units can:

- Reduce faculty turnover
- Improve design flexibility
- Encourage continuous improvement
- Increase the credibility of their program
- Create a direct pipeline into mainstream activities
- Eventually reach a status of "accepted" in the institutional culture

The challenge for distance education staff is instilling the faculty with a sense of ownership while still maintaining some control over the quality and speed of the process. As Sachs (1999) described, "Some faculty were not adept at taking advantage of the new technology tools at their disposal" (p.70) and therefore require support from instructional design and technology experts to optimize their use of computer-mediated distance learning technologies. In order to achieve this balance of faculty control and expert guidance, processes should be structured in such a way that faculty, designers, and technologists work hand-in-hand as a team to produce a course. Interdependence is critical in combating the silo effect, where functional performance is maximized at the expense of the department's overall effectiveness (Rummler & Brache, 1990).

Other benchmarks will raise similar issues of process design, such as:

- How will decisions be made regarding the adoption of new technologies?
- How will current courses be revised to work with new technologies?
- What supporting processes will be outsourced?
- How will faculty be selected and certified?
- How will student performance be assessed?
- How are courses going to be selected for online delivery?

Cell 6: Structuring the job

The structure and organizational design of a distance education unit will impact the performance of the department as a whole as well as the effectiveness of individual staff members (Moller, Benscoter, & Rohrer-Murphy, 2000). Rothwell (1996) suggests that redesign efforts may be needed "if the external environment becomes more unstable because it is becoming more competitive or if the internal environment becomes more unstable due to changing work methods or relationships" (p.228). Given the dynamic nature of external environments, distance education administrators would do well to design or redesign their organizations in such a way as to maximize flexibility and responsiveness.

Traditionally, distance education was developed in small teams, typically consisting of an author and an editor. This author-editor model was fast and inexpensive, however, with neither of the participants having instructional design expertise, courses often lacked instructional quality (Moore & Kearsley, 1996). With the advent of more complex technologies (e.g., videoconferencing and computer conferencing) and greater investment into distance education, teams expanded to include producers, instructional designers, technologists, graphic artists, librarians, and other specialists. With increasing project complexity, higher stakes, and more specialists involved,

development time and costs increased exponentially. Development cycles of over one year were not uncommon with this course team model.

Recommendation 6A: Structure jobs to optimize quality and efficiency

There are several other types of design models that organizations can use, including functional, divisional, project, matrix, and virtual design models. Traditional functional and divisional hierarchies may lack the flexibility and responsiveness needed in today's changing distance learning marketplace. The project structure emphasizes the role of project managers who lead temporary projects as the need arises. This may be suitable for fledgling programs that are looking to broaden support for distance education, but it does not lend itself well to long-term projects such as establishing entire online degree programs.

Matrix Model

The matrix design offers some possibilities for organizing distance education efforts. Distance education workers would have two immediate supervisors: the lead for their particular area of expertise (e.g., Instructional Design Lead) and the project managers they work with to develop courses. This model is frequently used by service organizations. In fact, many courseware development firms are organized this way. The design has inherent flexibility, responsiveness, and attention to quality, which can be critical in dynamic, client-oriented environments. On the other hand, this structure can often confuse staff members because of its complexity, its often conflicting priorities, and added layer of management. Another drawback is that by having project managers, whose job it is to plan, coordinate, and control, it may be difficult to instill a sense of ownership in faculty members.

Virtual Model

The virtual design is often seen as the design of the future, with its emphasis on temporary skilled workers, vendors, external consultants, and suppliers. This design of tomorrow is in fact the design of today for the film and television industries. Producers assemble directors, writers, cast members, set designers, as well as other support resources, vendors, and consultants as needed to work together for a limited time. Often, there are some full-time employees but only as many as absolutely necessary. One of the main drawbacks of outsourcing core competencies is the loss of benefits from organizational learning. In distance education, over-use of vendors, external consultants, and temporary help may not sit well with faculty and certainly will do little to build long-term relationships and acceptance within the institutional culture.

Consultant Team Model

Another possible structural design is the consulting team model. In this approach, faculty members lead the development effort and are assisted by instructional design and technology internal consultants. Other support staff members are also involved and may include some vendors, external consultants, and temporary workers. This model can be particularly effective if work processes are geared towards using reusable learning objects, templates, and centralized depositories of reference, content, and assessment materials. These would minimize the amount of customization required for each course and reduce the need for large full-time staffs of specialists. Olcott and Wright (1995) argue against such faculty-centered models, writing that: "distance education has both a responsibility and a unique opportunity to foster a student-centered learning process responsive to the diversity of adult learners" (p.14). Striking a balance between student needs and faculty control can be a difficult proposition for the distance education staff. However, alienating faculty by removing curriculum control and classroom autonomy may, in the final analysis, contribute little to improving the learning experience for the student.

Management

The purpose of management is to put the right people, systems, and resources in place to succeed; assess performance; provide feedback; and take action to maintain alignment with established organization, process, and job performance goals. Key issues to be addressed include:

- Are there feedback systems that help diagnose performance deficiencies?
- Are the right people in place in sufficient numbers and with the right resources to work effectively? In other words, are staff members motivated to perform?
- Are there consequences for negative performance as well as rewards for positive performance results?
- Are expectations, roles, and standards clearly communicated throughout the organization?

Cell 7: Managing the organization

In managing the distance education department, administrators should set milestones, measure performance, and ensure consistent alignment with the institution's mission. Distance education's contribution to the organization should be assessed and weighed against costs and organizational needs. Currently, the proliferation of online distance education courses is precariously perched on several assumptions. Sachs (1999) summarizes them, writing:

> "Distance education courses are being developed because there is a perception that there are a large number of students to be gained, often at the expense of other institutions; that it will be cheaper to serve students; or that it will be easier to teach because there will not be class meetings. (P.77).

Recommendation 7A: Conduct cost analysis

Though the debate continues, there is no conclusive evidence to show that online courses are cheaper or easier to implement than traditional classroom instruction. Therefore, cost justifications for distance education should be used cautiously, if at all. Results in business and academic settings indicate that distance learning efforts can reduce costs but too often bring more economic pain than gain (Fornaciari, 1999). A thorough cost analysis may help administrators reduce the economic uncertainty involved and should help them set realistic goals for the distance education programs. Whalen and Wright (1999) offer a framework for cost analysis that can be used to:

- Predict the number of students needed for a program to break even
- Identify the fixed and variable costs involved
- Identify realistic program life spans (time in use before requiring revision)
- Identify the opportunity costs involved
- Compare the development costs for the alternatives available

Rumble (1999) and Jewett (2000) provide similar cost analysis models.

Recommendation 7B: Identify the benefits/goals to be achieved

Distance education potentially offers significant benefits both to the institution and its students. Figure 2 is a partial list of these benefits. Though competition for enrollment and reduced costs are possible macro-benefits, or goals, of distance education, some schools are finding that flexibility is the single, greatest reason to implement it. Schools in Australia, for example, have taken to using the term "flexible learning" to describe the concurrent (dual-mode) usage of distance learning and classroom instruction. As Evans (1999) points out: "The viability of an educational institution is not just a matter of costs. It is also a matter of making judgments about community needs and obligations and state or national priorities" (p.41). Collis (1999) describes the growing movement in Europe towards improving flexibility of location as part of a broader effort to individualize education through flexibility in content selection, learning resources, technology use, and the amount and type of communication. Student-oriented goals such as these can help the university at-large to deal with shifting demographics, changing societal needs (e.g., lifelong learning), and growing competition from non-traditional educational and certifications programs. Also, making flexibility an organizational goal mandates changes throughout the institution and positions the distance education program as an important change agent and resource.

Cell 8: Managing the processes

Design and delivery processes should be benchmarked against established Instructional Systems Design (ISD), Human Performance Technology (HPT), and distance education best practices. For example, the standards developed by the International Board of Standards for Training Performance and Instruction (IBSTPI, 1998) can form the basis for the department's process standards as well as help in the development of hiring, training, and evaluation programs for instructional designers.

Recommendation 8A: Assess resource usage

Managing the process also means allocating the right type and right amount of resources. Distance education resources include technology (hardware, software, infrastructure), skills (ISD skills, technical know-how), funding (for outsourcing, updating systems, etc.), material (e.g., not enough desks), and human resources (not enough people or time to do the job, the wrong skill sets for the job). In order to make educated decisions about resource allocation, managers should put systems into place that assess resource usage.

Recommendation 8B: Assess the efficiency of workflows

In a survey of faculty member attitudes toward distance education, Rockwell, Schaer, Fritz, and Marx (1999) found that 57% of faculty members viewed release time as an incentive and ranked time requirement as their number one obstacle (p.6). With more and more faculty being asked to deliver courses online, the debate is under way: does it take more or less effort and time to develop and deliver a distance education course? A survey of distance education faculty, found that 53% believed that the distance courses required more work than resident classes (NEA, 2000). In a case study comparing a traditional class and an online course, Visser (2000) found that development and delivery time for the online course significantly exceeded those of the traditional course. DiBiase (2000) found contradictory results in a similar comparison case study. However, he did observe that the frequency of contact for online coursers is higher (5 times per week) than traditional courses (4 times per week). Considering the narrow margin of difference in the NEA study (44% felt it takes less work) and conflicting results of the case studies, this may be an issue that cannot be resolved in generic terms. Rather, each distance education department should formalize processes for assessing the amount of time needed to develop and deliver courses as well as the relative quality of those courses. In light of those results, a more accurate evaluation can be formed and, when necessary, steps can be taken to reduce the amount of time and effort required of faculty. Though faculty release time is important from the standpoint of faculty morale, it is even more critical from the standpoint of quality. Faculty and the specialists who support them need to have sufficient time for design, development, and delivery. There should also be formative and summative evaluation of courses to help team members adjust their outputs and continuously improve their courses. As Moore (2000) points out: "it's not a question of having less work or more work..., but (rather) getting better quality out of the same effort as a result of that effort being more effectively organized and applied" (p.5).

Cell 9: Managing the job/workers

Managing a distance education staff can be a challenging job. Not long ago, distance education courses were created by small teams of two to three people. Today, given the complexity of technology-based instruction, distance education programs rely on a variety of specialists. How will these specialized workers be managed? Who is best qualified to manage them and evaluate their performance? Given the specialized nature of their work, will staff members need to be evaluated against performance standards for their given fields or should they be held accountable for more general team performance standards such as quality, speed, and costs? How will staff members receive feedback for their individual and/or team performance? Thomas Gilbert (1978) points out that "more than half of the problems of human competence can be traced back to inadequate (feedback) data" (p.179).

Recommendation 9A: Performance standards

Performance standards act as an anvil against which performance is shaped. Without standards, it is difficult, perhaps impossible, to distinguish consistently good performance from bad, skilled workers from poor ones, and best practices from sub-optimal procedures. Performance standards provide an objective basis for performance-oriented feedback mechanisms.

Recommendation 9B: Feedback mechanisms

Rothwell (1995) found that feedback-related strategies make up 3 of the top 4 most frequently encountered human performance improvement interventions. This reflects the paramount importance of information and communication in an organization. Feedback helps with "goal refinement, documentation, determination of impact, and program improvement" (Hawkes, 1996: p.31). Distance education administrators should establish mechanisms for clear and timely communication of roles, responsibilities, performance expectations, performance results, and any information that is pertinent to the work of developing distance education courses. Without such information, performance suffers. On the other hand, "significant performance gains can be achieved by improving the flow of information about the work" (Rothwell, 1996: p.186). Sources of performance feedback include student comments about their experiences, help desk logs, budget-to-actual reports, and peer evaluations.

Conclusion

Distance education in postsecondary institutions is seeing dramatic growth. Is this upsurge an anomaly or is distance education a force that will stand the test of time and succeed in bringing about profound changes in the way we teach and learn? Though we cautiously subscribe to the latter, much will depend on distance education's ability to deliver results, not just in terms of bottom-line returns for institutions but also in terms of:

- Fruitful educational experiences for students
- Perceptions that employers have of students with online degrees
- True access across socio-economical classes and regions
- Adoption of innovative instructional approaches

This paper has examined the organizational alignment of distance education programs. Applying performance improvement strategies, recommendations have been presented for communicating goals, benchmarking processes, measuring results, providing timely feedback at all levels, and rewarding performance. A more complete summary is provided in Figure 5. Without a clear vision of performance goals, without plans for making the vision a reality, and without the structures and systems to manage performance, distance education administrators compromise organizational results and may realize only too late that performance does not just happen.

Figure 5: Summary of recommendations

	Goals	Structure	Management
Organization	***Cell 1*** – Establish balanced scorecard with goals that are aligned with the institution's mission.	***Cell 4*** – Determine the size and scope of the distance education organization.	***Cell 7*** – Assess student and organizational needs. Evaluate results through cost/benefit analysis.
Process	***Cell 2*** – Benchmark processes by identifying best practices for instructional design, development, and delivery of online courses.	***Cell 5*** – Use benchmarks to set process standards and develop policies and practices to support performance.	***Cell 8*** – Evaluate processes to determine standard resource usage levels. Use feedback to improve efficiency and quality.
Job/ Performer	***Cell 3*** – Identify roles needed, responsibilities, and outputs. Tie performance goals to reward system.	***Cell 6*** – Develop a workflow design that supports best practices.	***Cell 9*** – Set employee performance standards, measure results, and use feedback to improve performance.

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